TECHNOLOGY COURSES

SENIOR HIGH SCHOOL
Science and Technology, Engineering and Mathematics

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Empowerment Technology

Overview

Empowerment Technology

Empowerment Technologies

Empowerment Technology or E-Tech often deals with the use of different technologies such as mobile phones, telephone, computer and other devices to locate, save, communicate and to inform. Empowerment Technology is important for it is used...

Features of Empowerment Technology

ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware.

Importance of Technology in Education

Empowerment technology is important, especially to the millennial to prepare, to teach the value and to introduce them/us to the proper world of ICT and also, of course to teach us the proper etiquette of using it and not the way where people use it in violence that could end up someone else's precious life.

Topic 1
Introduction to ICT

Digital Native
- a person born or brought up during the age of digital technology
- familiar with computers and the internet from early age
- from the moment born, surrounded by technology, ICT

Information and Communication Technology
- The infrastructure and components that enable modern computing
- devices, networking components, applications, system
- combine allowed people and organizations to interact in the digital world
- important to meet day-to-day operational tasks
- hassle-free communication flow
- helps automating day-to-day manual processes
- increase productivity and improve accuracy

World Wide Web
- An information system where documents where other web resources are identified by URL (Uniform Resources Locators) which may be interlinked by hyperlinks and are accessible over the Internet
- Tim Burners-Lee, English (computer) scientist, 1989
- Web page refers to a single document in the Internet under a unique URL.
- Website is a collection of multiple web pages in which information on a related topic or other subject is linked together under a domain access.

Different Versions (Stages) of Web page

Web 1.0
- also known as Static Web page
- first web page used when WWW was invented
- stationary page
- easy, cannot be manipulated by the user
- content is the same for all the users

Web 2.0
- Dynamic Web Page
- evolution of Web 1.0
- The user is able to see a website differently than others
- social networking sites, blogs, wikis, video sharing sites, hosted services, web applications
- allows users to interact with the page
- instead of just reading the page, the user can be able to comment or create a user account
- allows users to use web browsers (user interface, application software, file storage) instead of just their operating system
- most websites that we visit today is under this

Key Features
- folksonomy — allows users to categorize and classify or arrange information using freely chosen keywords (tagging; pound sign or hashtag)
- rich user experience — the content is dynamic and is responsive to user input (local content)
- user participation — the owner of the website is not the only one able to put the content; others are able to place the content of their own by the means of comments, reviews and evaluation (comment on article, participate on polls, review a product)
- long tail services — offered on demand rather than one time purchase; time-based pricing or plan (subscribing to a data plan that charges you for the amount of time you spend on the Internet)
- software as a service — subscribing to a software only when needed; without purchasing (google docs); allows you to rent a software for a minimal fee
- mass participation — diverse info sharing through universal web access

Web 3.0

- semantic web
- provides a common framework that allows data to be shared and reused across applications
- movement led by www consortium (w3c)
- aim is to help machines or servers understand the users preferences to be able to deliver web content specifically targeting the user
- web 2.0: top results on preference of several users, preferences are considered geographically — web 3.0: studies preferences as an individual user, able to predict the best possible answers to your queries by learning from your previous choices
- yet to be fully realized because of:
- compatibility — html files and current web browsers could not support web 3.0
- security — security is in question since the machine is saving

Topic 2
Information Communication Technology

What is ICT?

ICT stands for: Information Communication Technology

- This is the use of all digital technology that exists to help each and every individual, business, and organization with the use of information.
- It deals with the use of different communication technologies such as mobile phones, telephone, internet, etc.

Current State of ICT

Department of Information and Communications Technology

The Department of Information and Communications Technology (DICT) shall be the primary policy, planning, coordinating, implementing, and administrative entity of the Executive Branch of the government that will plan, develop, and promote the national ICT development agenda (RA 10844).

Notable Titles

- Philippines: ICT Hub of Asia (BPO-Growth of ICT-Related Jobs).
- According to the 2013 edition of Measuring the Information Society by the International Telecommunication Union: 106.8 cellphones/100 Filpinos (2012).
- Top 1 and 9: "Selfiest Cities around the World" (Time Magazine, 2004)

Significant Topics

a. What is Internet?
b. WWW
c. Web browser
d. Web page
e. Website
f. Evolution of Web
g. Trends in ICT

Topic 3

Online Safety, Security, Ethics and Etiquette

a. **Internet Safety:** It refers to the online security or safety of people and their information when using internet.
b. **Online Security:** Its objective is to establish rules and measures to use against attacks over the internet. Since internet represents an insecure platform for exchanging information and opinions. It may lead to a highly risk of intrusion and fraud such as phishing.
c. **Ethics:** Simply refers to person's behavior when interacting with other netizens or while online.
d. **Etiquette:** Everything has its rules. Especially when communicating and working.
e. **Netiquette:** Network Etiquette. The do's and don't's of online communication.
f. **Internet:** Defined as information superhighway.

Types of Information

- Name (First name, middle name, last name)
- Parents Information
- Cellphone Number
- Address
- Telephone Number
- Birthday

Ten Rules of Netiquette

1. Remember the human
    - You need to remember that you are talking to a real person when you are online.
    - The internet brings people together who would otherwise never meet.
    - Remember this saying when sending an email: Would I say this to the person's face?
2. Adhere to the same standards online that you follow in real life
    - You need to behave the same way online that you do in real life.
    - You need to remember that you can get caught doing things you should not be doing...
        - Think before you click!
        - Think twice before reacting.
        - Once you post, you can't take it back! Think before you click send.
3. Know where you are in cyberspace
    - Always take a look around when you enter a new domain when surfing the web.
    - Get a sense of what the discussion group is about before you join it.
    - Avoid wasting time...
4. Respect other people's time and bandwidth
    - Remember people have other things to do beside read your email. You are not the center of their world.
    - Keep your post and emails to minimum by saying what...
5. Make yourself look good online
6. Share expert knowledge
    - Ask questions online.
    - Share what you know online.
    - Post the answers to your questions...
7. Help keep flame wars under control
    - Netiquette does not forgive flaming.
    - Netiquette does however forbid people who are flaming…
8. Respect other people's privacy
9. Don't abuse your power
    - Do not take advantage of other people.
10. Be forgiving of other people's mistake
    - Do not point out mistakes to people online.

Poor netiquette can lead to:

- Cyberbullying
- Toxic online behavior
- Negative digital footprint
- Release of personal information

Topic 4

Online Search and Research Skills

Online Search and Research

- Also known as internet research. More than just googling, typing a word in a google, and then clicking the search button. It is a skill needed to be improved to get factual information.
- Online Search is the process of interactively searching for and retrieving requested information by a computer from databases that are online. The interactive searches became possible in the 1980s with the advent of password databases and smart terminals.

Advantages and Disadvantages of Online Search and Research

Advantages

- Ability to obtain a large sample which increases statistical power
- Data is automatically coded so no data entry errors
- Reduce cost of conducting research

Disadvantages

- The online is not totally secure and theft is one of the numerous dangers it possess researchers personal information is at risk of being accessed by rogue persons
- Some of the materials on the internet have not been evaluated by experts or thoroughly screened
- Lack of accreditation and low quality

Contextualized Search

According to Feldman, during 2012, these are skills or optimized way of searching the internet based on the context provided, therefore narrowing down the results given back to you by the search engine. The "context" is/are event, statement, or idea in the terms you are searching for.

Steps to Make Contextualized Online Search

1. **Identify or choose a topic:** If the topic is not provided and you are free to choose the content, choose something you are interested in or new ideas. If a topic is provided, make an initial search of the subject usually with the help of google or wikipedia.
2. **Topic or task definition:** With the help of internet, use the google search or wikipedia or other sources to be able to define the topic or task. The internet will be able to provide you with a glimpse of what you want to understand and define.
3. **Identify methods of search:** Here, you can either perform experiments, explore, get a survey of the subject matter and textual content of the search.
4. **Identify sources of your research:** The reliable sources are very important to obtain the reach and accurate information for your research.
5. **Make your research strategies:** Here, you can list down all the keywords or specific topics to search on the internet. Identified books can be searched by title, subject, author, or isbn.
6. **Compiling the research results:** These are the strategies of handling large amount of data. It's necessary for you to be able to shift through them for your final analysis: either to keep or delete them.
7. **Evaluate the results of your research:** Here, you can go through the materials you have researched and check them for usefulness, relevance to your research, reliability, and accuracy.
8. **Create a list of your references for citation:** It is a good practice to keep your sources updated for your footnotes and bibliography. And this will save time going back to the net later.

Search Engines

It is a software system that is designed to search information on the World Wide Web. The search results are generally presented in a line result referred to as search engine result page. The information may be a mix of web pages, images, and other type of files.

Here are some examples:

- google
- bing
- yahoo
- ask.com
- aol.com

Search Operators

We also have search operators when we do our research in different search engines. Search operator is sometimes referred to as a search parameter. It's also a character or string of characters used in a search engine query to narrow the focus of the search.

Some of the examples are:

- quotations (“ “)
- AND or &
- NOT or -
- OR or |

Plagiarism

This is an act or instance of using or closely imitating the language and thought of another author without authorization. The presentations of that author’s work as one's own, as by not crediting the original. Also using other people's words and ideas without clearly acknowledging the source of the information.

Here are some reminders to avoid plagiarism:

- You need to cite the things you copy on the internet.
- Put quotation marks around everything that comes directly from the text and cite the source.
- Paraphrase, but be sure that you are not simply rearranging or replacing a few words inside the source.
- Use the style manual in properly citing sources.

Refer to youtu.be/HFWR0n_VBjc.

Topic 5

How Search Works

How long does it take to travel to Mars? Where did these results come from and why was this listed before the other one? Okay, let's dive in and see how the search engine turned your request into a result.

The first thing you need to know is when you do a search, the search engine isn't actually going out to the World Wide Web to run your search in real time. And that's because there's over a billion websites on the internet and hundreds more are being created every single minute. So if the search engine had to look through every single site to find the one you wanted, it would just take forever. So to make your search faster, search engines are constantly scanning the web in advance to record the information that might help with your search later. That way, when you search about travel to Mars, the search engine already has what it needs to give you an answer in real time.

Here's how it works. The internet is a web of pages connected to each other by hyperlinks.

Search engines are constantly running a program called a Spider that cross through these web pages to collect information about them. Each time it finds a hyperlink, it follows it until it has visited every page it can find on the entire internet. For each page the spider visits, it records any information it might need for a search by adding it to a special database called a search index.

Now, let's go back to that search from earlier and see if we can figure out how the search engine came up with the results. When you ask how long does it take to travel to Mars, the search engine looks in each of those words in the search index to immediately get a list of all the pages on the internet containing those words. But just looking for these search terms could return millions of pages, so the search engine needs to be able to determine the best matches to show you first.

This is where it gets tricky because the search engine may need to guess what you're looking for. Each search engine uses its own algorithm to rank the pages based on what it thinks you want. The search engine's ranking algorithm might check if your search term shows up in the page title, it might check if all of the words show up next to each other, or any number of other calculations that help it better determine which pages you'll want to see and which you won't.

Google invented the most famous algorithm for choosing the most relevant results for a search by taking into account how many other Web pages linked to a given page. The idea is that if lots of websites think that a web page is interesting, then it's probably the one you're looking for.

This algorithm is called page rank, not because it ranks web pages, but because it was named after its inventor, Larry Page, who's one of the founders of Google. Because a website often makes money when you visit it, spammers are constantly trying to find ways to game the search algorithm so that their pages are listed higher in the results. Search engines regularly update their algorithms to prevent fake or untrustworthy sites from reaching the top. Ultimately, it's up to you to keep an eye out for these pages that are untrustworthy by looking at the web address and making sure it's a reliable source. Search programs are always evolving to improve the algorithms so they return better results, faster results than their competitors.

Today's search engines even use information that you haven't explicitly provided to help you narrow down your search. So, for example, if you did a search for dog parks, many search engines would give you results for all the dog parks nearby, even though you didn't type in your location. Modern search engines also understand more than just the words on a page, but what they actually mean in order to find the best one that matches what you're looking for.

For example, if you search for fast pitcher, it will know you're looking for an athlete. But if you search for large pitcher, it will find you options for your kitchen.

To understand the words better, we use something called machine learning, a type of artificial intelligence. It enables search algorithms to search out not just individual letters or words in the page, but understand the underlying meaning of the words.

The internet is growing exponentially, but if the teams that design search engines do our jobs right, the information you want should always be just a few keystrokes away.

Refer to youtu.be/LVV_93mBfSU.

Topic 6

Google Search Tips and Tricks

Tip 1

How to search for an exact phrase or quote

If you want to identify the source of a quote or phrase, or exclude any website that doesn't include the exact phrase you are looking for then simply place the search terms in quotation marks.

- If I copy and paste a line from Plato's Republic without quotation marks, you'll notice that Google actually recommends a different wording and provides over 4 million search results.
- If I add the quotation marks, we suddenly narrow that down to just 7 results and can now identify the correct translation. This is perfect for referencing.

Tip 2

How to exclude a word from search results

If you want to prevent a certain word from appearing in search results, simply place a dash or minus symbol directly before the word you wish to omit.

- For example: we want to search for bass whilst preventing all bass fishing-related searches from appearing, we can type bass competition followed by -fish, -fishing and -speaker to remove all those millions of unwanted search results that have nothing to do with playing bass guitar.
- Similarly, if you are interested in a news item, you can remove certain news sources entirely using this technique (-cnn).

Tip 3

How to search for a phrase or quote with missing words

Simply use an asterisk as a placeholder for all missing words.

- Just yesterday, I was recommended a book on philosophy called something like 'A Little something-something Philosophy' but when I entered it in Google, it doesn't find the correct book.
- Simply type A Little * * Philosophy and Google returns the correct results based on the placeholders.

Tip 4

How to perform a reverse image search

Go to images google.com and then click either the camera icon to upload an image from your computer; or you can find an image hosted online, right-click on it and choose copy image URL, and paste it into the search field. The first page of results will display images that are similar or related to your original. And to find matching images, click search by image to display exact matches. This is a great way to find the origin of a specific image as mousing over each thumbnail displays the URL of the page on which it appears.

Tip 5

Search within a single website

One of Google's most useful features especially for researchers is its ability to search within a single website. To search within a single site, simply enter your search term followed by site:URL.

- For example, Thomas Paine site:archive.org.
- This returns only those pages on archive.org relevant to the search query, we can find his complete works as a PDF.

Tip 6

How to search for similar websites

If you found a website that you really like, you can type related:URL and Google will do its best to find websites that are related to the one entered. Whilst this doesn't guarantee equally excellent content, it does save time finding similar sites.

Tip 7

Search for a cached version of a website

Have you ever gone back to reread something posted on a website only to find that it's been removed or changed?

- Type cache: followed by the URL to find the last cached version of the site which may contain material that has been deleted or updated since. The frequency with which the website is updated and its popularity will determine how often Google caches the website, but often the cached version can be weeks or even months older than the current version.

Tip 8
Search for a specific file type
Google allows you to search for a particular file type by typing file type: followed by the file type extension (for example: pdf, ppt, doc, or xls). This is an incredibly useful tool if you want material published in any of these formats. By searching for a PDF over a regular website, you're likely to be able to find academic essays, report, entire books, and much else of interest. Likewise, searching for a PPT file will yield hundreds of PowerPoint presentations that often contain the information in a distilled form from sources such as universities.

Tip 9
How to only display results that include the search term in the page title
To perform a search that only returns the pages with your search term as their title just type intitle: then your search term.

Tip 10
Search google without using Google and protect your privacy

- Lastly, if you want to use all the benefits of Google's excellent search results but a concern about your privacy, then try startpage.com.
- Start page delivers Google search results without recording your IP address or placing tracking cookies in your browser as well as using SSL encryption to ensure your ISP can't record what you do online.

Refer to youtu.be/R0DQfwc72PM.

Topic 7
Online Systems, Functions and Platforms

Platforms

- A platform is a group of technologies that are used as a base upon which other applications process or technologies are developed. According to Marc Andreesen, a software engineer and a co-founder of netscape, he said that "If you can program it then it's a platform. If you can then it's not."
- The key term in the definition of platform is "programmed". And you can safely ignore whoever's talking which means you can safely ignore 80 of the people in the world today who are using the term 'platform' and don't know what it means.

There are also online platform categories, we have: social media, search engines, communications, service payment, systems advertising platforms, and creative content outlets.

First in online platform category is:

Social Media
Social media is a website application or online channel that enables web users to create, co-create, discuss, modify, and exchange user-generated content in a website.

Search Engines
It is a software system that is designed to search information on the World Wide Web. The search results are generally presented in a line result referred to as search engine result page. The information may be a mix of web pages, images and other type of files.

Here are the top 10 Search Engines in 2016.

1. Google
2. Bing (Microsoft)
3. Yahoo (No. 1 Email Provider)
4. Ask.com (Ask Jeeves)
5. AOL.com (America Online)
6. Baidu (China)
7. Wolframalpha (Computational Knowledge Engine)
8. DuckDuckGo (simple)
9. Internet Archive (histories of a domain)
10. ChaCha.com (similar to Ask.com)

Communication Services
These are outsource enterprise communication solutions that can be leased from a single vendor or provider. A CSP or communication services provider is a provider that transports information electronically, and can encompass public and private companies and: telecom, internet, cable, satellite, and manage services business.

Examples of Telecommunications & Internet

- Smart
- PLDT
- Globe
- Sun Cellular

Payment System
It is any system used to settle financial transactions through transfer of monetary value and includes the institutions, instruments, people, rules, procedures, standards, and technologies.

Advertising platforms
It allows users to create and manage advertising campaigns, generate reports, and retrieve information about the ads, campaigns and organizations that are associated with an account

Creative Content Outlet
According to the website allenbrand.com, creative content is an umbrella term that's used to describe the various forms of enriched multimedia that should form a core part of your online presence and marketing strategy.

Some of the most important types of creative content are:

- photography;
- graphic design;
- video;
- and blog content

So those are the categories of online platform: the Social Media, Search Engines, Communication, Service Payments, Systems Advertising Platform, and Creative Content Outlets.

System

System means a set of principles or procedures according to which something is done; also it means an organized scheme or method.

Examples are software applications and operating systems.

Online systems are online versions of information systems which is the process and tools for storing, managing, using, and gathering of data like for example is:

- Online shopping system like lazada.com.ph — the process of the online shopping system, if you already have an account, you can first open the app and search the item you wish to buy. Next, you're going to choose from the result and click add to cart. Now select the items you wish to order and click check out. Choose the payment method that you would like to use like: cash on delivery, or payment through debit and credit. Then click confirm selection to review and confirm by the seller in Lazada. Once done, the order will proceed under the top ship then will deliver to you in a couple of days.

Refer to youtu.be/HFWR0n_VBjc.

Media and Information Literacy

Topic 1
Media

Information is easily accessible in the present times through the use of the different media platforms. Through Media and Information, people become literate. Media and Information literate individual greatly influences the community.

A media-literate person can decode, evaluate, analyze, and produce both print and electronic media. The fundamental objective of Media Literacy is critical autonomy relationship to all media. Emphases in media literacy training range widely, including informed citizenship, aesthetic appreciation and expression, social advocacy, self-esteem, and consumer competence (Kotlay, 2011).

Media and Information Literate Individuals are capable of doing and helping:

- attract greater opportunities and enhances the way of living;
- promote awareness on the various dealings and activities that impact the community and society as a whole;
- liberate minds and develop characters;
- increase political and social participation;
- empower economic stability;
- enhance business and career opportunities;
- encourage personal and professional growth;
- develop communication skills;
- improved learning environment; and
- maximize more cohesive social units.

In this age of information, being critical, careful and sensitive is very important. Being able to understand why and how information is made and accessed brings us to completely recognizing and appreciating the people behind these media of different forms.

People Media

People Media refers to the persons that are involved in the use, analysis, evaluation, and production of media and information.

Types of People Media

People as Media

This are individuals who serve as channels of information dissemination. Before, they make use of writing essays, literature and news to create artifacts. But with the advent of technology and social media, people are now empowered to not just produce artifacts but also evaluate, analyze, edit and five feedback to media artifact. They are the media itself.

There are 4 types of People as Media.

- Opinion Leaders — These are leaders of particular groups of people in a community. These are influential people that communicate the messages they get from the mainstream media or from higher positions in an organization and conveyed these messages to certain individuals, especially those who can't afford to directly receive messages from the original source. However, the messages they share are filtered, adding their own opinion about the issue which invalidate the truthfulness of the original information.
- Citizen Journalism — People from different age category and from the different walks of life who are able to use modern technology as means of communication like sharing information from newsworthy events to other people are considered to be doing citizen journalism. Citizen Journalism doesn't need to one to be professionally trained journalist. As long as one is able to share ideas, information, send photos and videos about a prevalent phenomenon in a community through using the different types of media and the several social media platforms to a greater scope of the society is considered as citizen journalism.
- Social Journalism — 21st century is all about maximizing the use of technology but with critical judgement on how it should be manipulated. One product of technology that create a massive impact to the society are the different Social Media platforms such as Facebook, Twitter, Instagram, etc. These platforms are now being used to spread information in a more accessible and convenient way. People no longer look for news because it directly comes to the user. Journalism, Media and Information are becoming social phenomenon and a trend of today. Professional journalists, reader content and average citizens who contribute news work together for public awareness.
- Crowdsourcing — Because of the aid of the several media platforms and high technology gadgets, soliciting ideas, recommendations and suggestions from services, ideas, places, etc. have come so handy nowadays. People from the online community make use of crowdsourcing to obtain information from other media users.

People in Media

These are the people who manipulate the media behind the lens and pens. They use text, audio, visual, multimedia, etc. to spread information and messages for the public.

- Multimedia Journalists — They are the ones who have abilities in accessing, evaluation and producing information using several forms of media. Mostly, they make use of social networking sites to connect to the masses for east and wider dissemination of their reliable news stories.
- Print Journalists — These are people who underwent training in journalism writing. Equipped with the fundamental and significant knowledge and strategies in writing news and stories based from real events in the community; written for the people in the community. They generally report in newspaper and magazine.
- Broadcast Journalists — They are who we often see on television, giving us updates on the local, national and world events. They are skilled not just in journalism but also in public speaking.
- Photojournalists — They are physically and emotionally attached to their high-end cameras which they use to capture important scenes and events from the surroundings which carry with it stories that give impact to the society as a whole.

Topic 2
Current and Future Trends

The only guarantee to failure is to stop trying.

Wearable Technology
- also called wearable gadgets
- is a category of technology devices that can be worn by a consumer and often include tracking information related to health and fitness.
- Other wearable tech gadgets include devices that have small motion sensors to take photos and sync with your mobile devices.

Smartwatch
- a wearable computing device that closely resembles a wristwatch or other time-keeping device

Practical Uses
- Notifications — One of the main reasons you would buy one is (because) a smartwatch displaying notifications.
- Battery Life — A huge, high-resolution monitor is often one of the biggest drains in battery life for your smartphone.
- Music — Most smartwatches come with a music player feature in them, enabling you to listen to music in your pocket on the phone.

Smartphone
A cellular phone with an embedded computer and other non-telephone-related features such as an operating system, web browsing, and the ability to run software applications.

Key Features of Smartphone
- mobile browsing
- gaming
- touchscreen
- internet connectivity
- digital camera with video capability
- unified messaging

Fitness Tracker
- A wrist-worn device that can detect some combination of walking steps, running distance, heart rate, sleep patterns and swimming laps.

a. Heart Rate Monitoring Device — A technology that will calculate and monitor your heart rate.
b. Misfit Phase Hybrid — This watch can count your steps and your heart rate.
c. Fitbit Charge — This watch is good for exercise. It can count your running time and the distance.
d. Smart glass — This smart glass can collect information from external and internal. You can listen to music too while searching for information.

Future Technologies
a. 5G Smartphone and Network: 5G s the fifth generation of internet speed. This is the new fastest speed of internet connection. The successor of 4G.
b. Avatars, Surrogates, Robotic: This is a mechanical robot. It has the characteristics of a robot. They can do things like humans.
c. Hologram: It is a pattern of interference produced by a split coherent beam.

The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life. — Bill Gates

Topic 3
Opportunities, Challenges, and Power of Media and Information

a. **Power:** It is the capacity to influence the actions, beliefs, or conduct of others.
b. **Television Broadcaster:** A television presenter presents information relating to subjects such as news and sports, and may also be responsible for planning the creative content of a series. Such experts will work with news programs and help to discuss important topics in reporting, as well as provide comments on various events.
c. **Mobile Communication:** A means of technology-mediated communication that allows the user of a mobile device to connect with someone else at a different location, such as texting from a cell phone and sending email from a computer device equipped with Wi-Fi.
d. **Mobile Phone:** A mobile phone is a wireless portable device that allows users to make and receive calls, and send text messages. The first mobile phone generation would only be able to make and receive calls.

Four Different Types of Cyber crime

1. **Hacking** is the most common type of cyber crime committed across the world. Hacking is a crime which entails cracking systems and gaining unauthorized access to the data stored in them.
    - Hacker is a person who breaks into a computer system.
2. **Virus Dissemination**. Virus is the program which attach themselves to the computer or file and then circulate themselves to other files and to other components on a network. They usually affect the data on the computer either by altering or deleting it.
3. **Cyber stalking** is used of Internet or other electronic means to stalk someone. It is online harassment and online abuse. Mostly cyber stalking involves following a person's movement across the Internet by posting threatening message to the victim.
4. **E-mail Spoofing**. An e-mail that appears to originate from one source but actually has been sent from another source. This can also be termed as e-mail forging.
5. **Phishing** is a cybercrime in which a target or targets are contacted by e-mail, telephone, or text messages by someone posting as a legitimate institution to hire individuals into providing sensitive data such as personally identifiable information, baking and credit card details, and passwords.
    - How does it become a challenge?
    - Cyber crime hackers can access your personal information.
    - Phishing is a crime where the hacker gets your confidential information, such as bank account details.

Power

- **Students:** The power of media and information in the students is that, nowadays, the information is
- **Business:** The power of media and information in business is very strong. Using media, the business owner can easily market their products.
- **Society:** The power of media and information in our society is huge. Through media, the society can easily get and understand the information related to what is happening.

It takes 20 years to build a reputation and few minutes of cyber-incident to ruin it. Think before you click.

Topic 4
Legal, Ethical, and Societal Issues in Media and Information

Republic Act No. 10175

- Cybercrime Prevention Act of 2012
- A law in the Philippines approved on September 12, 2012 which aims to address legal issues concerning online interactions and the Internet
- Among the cybercrime offenses included n the bill are cybersquatting, cybersex, child pornography, identity theft, illegal access to data and libel.

A. **Cyber:** relating to, or involving computers or computer networks (such as the Internet)
B. **Cyberspace** refers to the virtual computer world, and more specifically, is an electronic medium used to form a global computer network to facilitate online communication.
C. **Cybercrime** refers to the criminal activities carried out by means of computers or the Internet.
D. **Cyberbullying** is the use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.
E. **Hacking** refers to the practice of modifying or altering computer software and hardware to accomplish a goal that is considered to be outside of the creator's original objective. Those individuals who engage in computer hacking activities are typically referred to as "hackers".
F. **Phishing** is the attempt to obtain sensitive information such a usernames, passwords, and credit card details (and indirectly, money), often for malicious reasons, by disguising as a trustworthy entity in an electronic communication.
G. **Illegal Downloading** refers to obtaining files that you do not have the right to use from the Internet.
   - Illegal Downloading Sites: The Pirate Bay, Kickass.to, TorrentDownloads.me, YTS.ag, RARBG.to
   - Legal Downloading Sites: iTunes, Yahoo Music, Amazon, Netflix, Ruckus
H. **Digital Piracy** is the practice of illegally copying and selling digital music, video, computer software, etc.
I. Identity Theft is the deliberate use of someone else's identity, usually as a method to gain a financial advantage or obtain credit and other benefits in the other person's name, and perhaps to the other person's disadvantage or loss.
J. **Cyber Defamation** is an unprivileged false statement of fact which tends to harm the reputation of a person or company
   - Two Types of Defamation: Libel — written, Slander — verbal
K. **Cybersex** is also called computer sex, Internet sex, netsex. It is also a virtual sex encounter in which two or more people (connected remotely via internet) send each other sexually explicit contents or sexually explicit acts.
L. **Child Pornography** is a form of child sexual exploitation.
M. **Cybersquatting** refers to the registering, trafficking in, or using an Internet domain name with bad faith intent to profit from the goodwill of a trademark belonging to someone else. The cybersquatter then offers to sell the domain to the person or company who owns a trademark contained within the name at an inflated price.
N. **Copyright** is a legal device that gives the creator of a literacy, artistic, musical, or other creative work the sole right to publish and sell that work. Copyright owners have the right to control the reproduction of their work, including the right to receive payment for that reproduction. Violation of a copyright is called infringement.
O. **Plagiarism** is an act or instance of using or closely imitating the language and thoughts of another author without authorization; the representation of that author's work as one's own, as by not crediting the original author.
P. **Fair Use** is a legal concept that allows the reproduction of copyrighted material for certain purposes without obtaining permission and without paying a fee. Purposes permitting the application of fair use generally include review, news reporting, teaching, or scholarly research.
Q. **Computer Addiction** is the excessive use of computers to the extent that it interferes with daily life. This excessive use may for example interfere with work or sleep, result in problems with social interaction, or affect mood, relationships and thought processes.
R. **Digital Divide** is an economic inequality between groups in terms of access to, use of, or knowledge of ICT. The divide within countries can refer to inequalities between individuals, households, businesses, and geographic areas at different socioeconomic (and other demographic) levels.
S. **Virtual Self** is the persona you create about yourself virtually
T. **Netiquette** is the correct or acceptable way of communicating on the Internet.